

**REMARKS:**

In response to the Office Action, claims 11, 25, 32, 33, and 35 have been amended.

Support for the amendments may be found throughout the specification, for example, at page 75, lines 16-23, between page 78, line 20 and page 79, line 10, and at page 83, lines 3-16, as well as in the drawings, e.g., in FIGS. 19A-20F. No new matter has been introduced. Therefore, claims 11-14, 16-18, 25-26, and 29-38 remain pending.

In the Office Action, claims 11-14, 16, 17, 25, 26, 29-31, 33, 34, and 36-38 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,994,686 (“the Cruise et al. reference”) in view of U.S. Patent No. 6,223,936 (“the Jeanbourquin reference”). Because neither of the cited references, either alone or in combination disclose, teach, or suggest the subject matter of the present claims, the rejections should be withdrawn.

As an initial matter, Applicants appreciate the Examiner’s indication that claim 18 remains allowed and that claims 32 and 35 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, claims 32 and 35 have been simplified and rewritten in independent form.

Turning to the Cruise et al. reference, as explained in Applicants’ previous response, the Cruise et al. systems involve double syringe delivery systems that are manually operated to deliver fluids out of syringe barrels.

Turning to the present claims, claim 11 recites a method for delivering a sealing compound from a delivery device comprising a pair of barrels including outlets and a plunger assembly slidable within the barrels from a first position to a second position for injecting components out of the barrels through the outlets that includes introducing a delivery sheath into a puncture

through tissue; connecting the barrels to a lumen of the delivery sheath; providing sealing components in the barrels with the plunger assembly in the first position; and activating an actuator coupled to a spring mechanism to release the spring mechanism, whereupon the spring mechanism automatically directs the plunger assembly towards the second position to inject the sealing components out of the barrels through the lumen of the delivery sheath and into the puncture without pauses during delivery of the components out of the barrels and without requiring further activation of the actuator.

The Cruise et al. reference does not disclose, teach, or suggest activating an actuator coupled to a spring mechanism to release the spring mechanism, whereupon the spring mechanism automatically directs the plunger assembly towards the second position to inject the sealing components out of the barrels through the lumen of the delivery sheath and into the puncture without pauses during delivery of the components out of the barrels and without requiring further activation of the actuator. In fact, the Cruise et al. reference fails to teach or suggest anything about auto-injector assemblies.

Although the Jeanbourquin reference discloses a device for simultaneously delivering fluids from two containers, the device requires a user to pull a brake lever 40 against a biasing spring 50 to deliver the fluid from the containers. Without the user pulling on the brake lever 40, the brake lever 40 is urged by the spring 50 to cause a braking surface 41 to be urged against a slider 30, thereby preventing further fluid delivery. The Jeanbourquin device includes a spring 32 that constantly urges the slider 30 to move proximally relative to a carrier, but the urge is resisted by the braking surface 41 unless the brake lever 40 is pulled towards the grip 20.

Thus, this spring 32 is not *released* once an actuator is activated to *automatically* direct pistons towards their distal position to deliver components out of barrel chambers *without requiring further activation of the actuator*. Instead, after the Jeanbourquin brake lever 40 is initially pulled, the user must continue to pull the brake lever 40 to deliver fluids from the syringe barrels. Otherwise, if a user initially pulled the brake lever 40 and then released it, fluid would stop flowing from the syringe barrels because the braking surface 41 would again engage the slider 30.

Thus, the Jeanbourquin reference does not teach or suggest a spring mechanism that automatically directs the plunger assembly towards the second position to inject the sealing components out of the barrels through the lumen of the delivery sheath and into the puncture *without pauses* during delivery of the components out of the barrels and *without requiring further activation of the actuator*, as claimed.

In contrast to the Jeanbourquin device, one of the advantages of the claimed auto-injection assembly is that it *automatically* delivers components, such as sealing components, from barrels without unintended pauses. As explained at page 79, lines 3-7 of the present application “Such interruptions risk occluding the delivery line, i.e., the ‘Y’ fitting, mixer, or other passages through which the sealing compound passes. This may be a particular concern where the sealing compound has a relatively short gel or set-up time.” The Jeanbourquin reference fails to address this concern and would actually exacerbate this problem, because the disclosed device is biased to stop delivery. Even if there somehow was motivation to provide sealing components in the Jeanbourquin device, which Applicants do not concede, the device risks occluding a delivery line, because the device is biased to stop fluid flow when the user releases the brake lever and cannot

automatically deliver fluid. For these reasons, claim 11 and its dependent claims are not obvious over the Jeanbourquin reference.

For similar reasons, claim 25 and 33, and their dependent claims are also not obvious over the Cruise et al. and Jeanbourquin references. These claims also recite activating an actuator to inject sealing components out of barrels into a puncture *without requiring further activation of the actuator*. Neither of the cited references teaches or suggests such an actuator.

In view of the foregoing, it is submitted that the claims now presented in this application define patentable subject matter over the cited prior art. Accordingly, reconsideration and allowance of the application is requested.

Applicants hereby petition for any extension of time necessary to make the present response timely. Applicants believe that a one month extension is currently required.

Respectfully submitted,  
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Dated: September 30, 2008

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